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| 10/767,397 | 01/30/2004 | Tomoyuki Ito | 008601-0307943 | 2672 |
| 909 | 7590 | 05/11/2006 | EXAMINER | |
| PILLSBURY WINTHROP SHAW PITTMAN, LLP | | | MONDT, JOHANNES P | |
| P.O. BOX 10500 | | | ART UNIT | |
| MCLEAN, VA 22102 | | | PAPER NUMBER | |
| | | | 3663 | |

DATE MAILED: 05/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|-----------------------------------|--|
| Office Action Summary | Application No. 10/767,397 | Applicant(s) ITO ET AL. | |
| | Examiner Johannes P. Mondt | Art Unit 3663 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) 1-10, 15-20 and 24-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-14 and 21-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>1/3/4, 3/1/6</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of Species 1 in the reply filed on 2/23/06 supplementing applicant's election of the Group II invention (filed 11/22/06), and applicant's statement that claims 11-14 and 21-23 read on the elected Group and Species, is acknowledged. Accordingly, only claims 11-14 and 21-23 are being examined and claims 1-10, 15-20 and 24-29 have been withdrawn from consideration.

Priority

Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on 1/31/2003. It is noted, however, that applicant there is insufficient evidence that applicant has filed a certified copy of the Japanese application as required by 35 U.S.C. 119(b). Only a cover letter by applicant stating submission of a priority document is in the file, not the priority document itself. Therefore, at this time priority cannot be extended. Examiner has telephoned applicant's representative with a request to forward evidence of the submission of the foreign priority document.

Information Disclosure Statement

The items listed in the Information Disclosure Statements (IDS) filed 1/30/04 and 3/1/06 are herewith acknowledged to have been considered with the exception of the Foreign Patent Document listed in the IDS filed 3/1/06, in which a discrepancy has been noted between the Patent Document Number and Publication Date on the one hand and the name of inventor(s) on the other hand: an item with the listed Patent Document

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Number and Publication Date but to Kurata et al has been considered. Applicant is invited to re-submit said IDS filed 3/1/06 with the corrected inventor information for said Foreign Patent Document item.

Specification

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. *The Specification is objected to* because the adjective “appropriate” in “at an appropriate angle” (see [0021]) is introduced without providing a definite meaning for said adjective nor a quantitative criterion by which an angle can be determined to be either appropriate or not appropriate. What is “appropriate” for said angle depends on the object to be repaired or inspected. Said object is not introduced so as to know its specific geometric and topographic properties according to which an angle “appropriate” for its use may be determined.
2. *The Specification is objected to* because the adjective “appropriate” in “to an appropriate position” (see [0024]) is introduced without providing a definite meaning for said adjective nor a quantitative criterion by which a position can be determined to be either appropriate or not appropriate. What is “appropriate” for said position depends on the object to be repaired or inspected. Said object is not introduced so as to know its specific geometric and topographic properties according to which a position “appropriate” for its use may be determined.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. **Claims 12-13 and 22** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention. In particular, what constitutes an “appropriate angle” for the inclination of the “at least one of a guide rod and a guide surface” has not been described by the specification.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. **Claims 11-14 and 21-23** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, “a vertical axis” (line 7 of claim 11 and line 7 of claim 21) is merely an attribute of a body or structure, which, in the absence of the definition of said body or structure, is indefinite.
2. **Claims 12-13 and 22** are additionally rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular,

the limitation "appropriate" in "at an appropriate angle" (line 2 of claim 12, line 4 of claim 13, line 4 of claim 22) is introduced without providing, neither in the claim nor in the specification, a definite meaning for said adjective nor a quantitative criterion by which an angle can be determined to be either appropriate or inappropriate. What is "appropriate" for said angle depends on the object to be repaired or inspected. Said object is not introduced so as to know its specific geometric and topographic properties according to which an angle "appropriate" for its use may be determined.

3. **Claims 14 and 23** are additionally rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, the limitation "appropriate" in "to an appropriate position" (line 3 of claim 14) is introduced without providing, neither in the claim nor in the specification, a definite meaning for said adjective nor a quantitative criterion by which a position can be determined to be either appropriate or inappropriate. What is "appropriate" for said position depends on the object to be repaired or inspected. Said object is not introduced so as to know its specific geometric and topographic properties according to which a position "appropriate" for its use may be determined.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. **Claims 11-14 and 21-23** are rejected under 35 U.S.C. 102(b) as being anticipated by Paillaman et al. (US 2002/0080905 A1). The following rejections are subject to the noted indefiniteness under 35 USC 112 overleaf. In the rejections “appropriate” as an adjective is assumed to have no patentable weight while the vertical axis is assumed to pertain to the claimed body.

On claim 11: Paillaman et al teach (title, abstract, Figures 1-6 and [0020]-[0040]) an apparatus 82 ([0026] and Figure 3) capable of executing an operation in a vessel 10 (Figure 1 and [0020]) of a nuclear reactor, comprising: a body 84 ([0026]-[0027] and Figure 3) capable of being suspended and lowered into the vessel; a tool 140 ([0026]-[0027] and Figure 4) attached to the body capable of at least one of repairing and inspecting (namely: inspecting, “inspection tool”) an interior of a pump 34 ([0020]-[0025] and Figure 2) in the vessel; a guide 120 ([0029] and Figure 4) and supported at a lower portion of the body (see Figure 3), the guide 120 having an inclined surface with respect to a vertical axis (the vertical axis being the axis of elongate frame member 86 of apparatus 82; see Figure 3 and [0027]).

On claim 12: the guide 120 includes at least one of a guide rod and a guide surface first portion 124 coupled to second portion 126 by flexible U-joint 128, and, in an alternative identification: and/or probe sub-assembly 130 coupled to second portion 126

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by second flexible U-joint 132; see [0029] and Figure 4) inclined at an angle with respect to a vertical axis (i.e., the vertical axis being the axis of elongate frame member 86 of apparatus 82; see Figure 3 and [0027]). Whether this angle is "appropriate" is a matter of use and hence of functional language: In reference to the claim language referring to "appropriate", intended use and other types of functional language must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In re Casey, 152 USPQ 235 (CCPA 1967); In re Otto, 136 USPQ 458, 459 (CCPA 1963).

On claim 13: the guide 120 is freely supported at the lower portion of the body 84 (attached to it with one free end; see Figure 4) and is capable to be inclined at an angle (please note the flexible U-joints; see Figure 6 and [0029]-[0032]) with respect to a vertical axis (the vertical axis being the axis of elongate frame member 86 of apparatus 82; see Figure 3 and [0027]). Whether this angle is "appropriate" is a matter of use and hence of functional language: In reference to the claim language referring to "appropriate", intended use and other types of functional language must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In re Casey, 152 USPQ 235 (CCPA 1967); In re Otto, 136 USPQ 458, 459 (CCPA 1963). Finally, a gravitational force is inherent and thus is a force on the guide contributing to its orientation and hence its angle.

On claim 14: the guide is by virtue of the flexibility of the joints biased to return to an equilibrium position with respect to the body. Whether this position is “appropriate” is a matter of use and hence of functional language: In reference to the claim language referring to “appropriate”, intended use and other types of functional language must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In re Casey, 152 USPQ 235 (CCPA 1967); In re Otto, 136 USPQ 458, 459 (CCPA 1963).

On claim 21: Paillaman et al teach (title, abstract, Figures 1-6 and [0020]-[0040]) an apparatus 82 ([0026] and Figure 3) capable of executing an operation in a pressure vessel 10 (Figure 1 and [0020]) of a nuclear reactor, comprising:

a body 84 ([0026]-[0027] and Figure 3) capable of being suspended and lowered into the vessel;

a tool 140 ([0026]-[0027] and Figure 4) attached to the body capable of at least one of repairing and inspecting (namely: inspecting, “inspection tool”) an interior of a pump 34 ([0020]-[0025] and Figure 2) in the pressure vessel 10;

a guide 120 ([0029] and Figure 4) and supported at a lower portion of the body (see Figure 3), the guide 120 capable of having an inclined surface with respect to a vertical axis (the vertical axis being the axis of elongate frame member 86 of apparatus 82; see Figure 3 and [0027]) when the body is suspended and the guide is inserted into an opening in the pump. Whether or not such inclined surface actually occurs under the stated conditions is a matter of use and is not of patentable weight in the present

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apparatus invention. In reference to the claim language referring to “when the body is suspended and the guide is inserted into an opening in the pump”, intended use and other types of functional language must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In re Casey, 152 USPQ 235 (CCPA 1967); In re Otto , 136 USPQ 458, 459 (CCPA 1963). Parenthetically it is noted that in use the body is indeed suspended and the guide is inserted into an opening in the pump ([0031]-[0036]).

On claim 22: the guide 120 is freely supported at the lower portion of the body 84 (attached to it with one free end; see Figure 4) and is capable to be inclined at an angle (please note the flexible U-joints; see Figure 6 and [0029]-[0032]) with respect to a vertical axis (the vertical axis being the axis of elongate frame member 86 of apparatus 82; see Figure 3 and [0027]). Whether this angle is “appropriate” is a matter of use and hence of functional language: In reference to the claim language referring to “appropriate”, intended use and other types of functional language must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In re Casey, 152 USPQ 235 (CCPA 1967); In re Otto, 136 USPQ 458, 459 (CCPA 1963). Finally, a gravitational force is inherent and thus is a force on the guide contributing to its orientation and hence its angle.

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On claim 23: the guide is by virtue of the flexibility of the joints biased to return to an equilibrium position with respect to the body. Whether this position is “appropriate” is a matter of use and hence of functional language: In reference to the claim language referring to “appropriate”, intended use and other types of functional language must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In re Casey, 152 USPQ 235 (CCPA 1967); In re Otto, 136 USPQ 458, 459 (CCPA 1963).

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. **Claims 11-14 and 21-23** are rejected under 35 U.S.C. 102(e) as being

anticipated by Ganoza et al. (US 2003/0085301 A1). The following rejections are provided subject to the noted indefiniteness under 35 USC 112 overleaf.

Ganoza et al teach (title, abstract, Figures 1-5 and 8, and [0017]-[0039]) an apparatus 80 (Figures 4-5 and 8) for executing an operation in a vessel of a nuclear reactor (a cleaning operation is a special case of an operation), comprising:

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a body 84 capable of being suspended and lowered into the vessel 10 ([0017]) (N.B.: the cleaning device is lowered into the vent inlet 66 of the inlet mixer 40 in said pressure vessel 10 (see Figures 1-2 and 4-5, and [0018]-[0021]));

a tool 92 ([0021] and Figures 4-5 and 8) attached to the body (see Figures 4-5) capable of at least one of repairing and inspecting an interior of a pump 34 ([0017]) in the pressure vessel 10 (N.B.: cleaning is a special case of repairing); and

a guide 100 supported at a lower portion of the body (see Figure 8 in conjunction with Figures 4-5); the guide having an inclined surface with respect to a vertical axis (see Figures 4-5 and 8, and [0023]).

In reference to the claim language referring to an apparatus “for executing an operation in a vessel of a nuclear reactor”, and to a tool “for at least one of repairing and inspecting”, intended use and other types of functional language must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. *In re Casey*, 152 USPQ 235 (CCPA 1967); *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

On claim 12: the guide 100 includes at least one of a guide rod and a guide surface (namely bends 102, which are part of a tubing section, and hence meet the limitation “rod” and also the limitation “surface”; see [0023]) inclined at an angle with

respect to a vertical axis ("vertical axis" being parallel to tube section 82; see Figures 4-5).

On claim 13: the guide 100 is freely supported at the lower portion of the body 84 (i.e., attached at one end only) (Figure 4) and inclined with respect to a vertical axis (main axis of 84 or main axis of 82; see Figure 4). Whether this angle is "appropriate" is a matter of use and hence of functional language: In reference to the claim language referring to "appropriate", intended use and other types of functional language must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In re Casey, 152 USPQ 235 (CCPA 1967); In re Otto, 136 USPQ 458, 459 (CCPA 1963). Parenthetically, as evidenced from Figure 8 the angle is suitably flexible for insertion of the body 84 into the jet pump 34. Finally, a gravitational force is inherent and thus is one of the forces on the guide, and hence contributes to its orientation and its angle.

On claim 14: the guide 100 is part of tubing section 82, which is made of metal ([0021]). It is inherent to metal to be flexible to some degree so that when forced out of equilibrium, it returns to equilibrium. Furthermore, the limitation "to return to an appropriate position with respect to the body" implies a method of use limitation and as such constitutes functional language. In reference to the claim language referring to "to return to an appropriate position with respect to the body", intended use and other types of functional language must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from

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the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In re Casey, 152 USPQ 235 (CCPA 1967); In re Otto, 136 USPQ 458, 459 (CCPA 1963).

On claim 21: Ganoza et al teach (title, abstract, Figures 1-5 and 8, and [0017]-[0039]) an apparatus 80 (Figures 4-5 and 8) for executing an operation in a pressure vessel 10 of a nuclear reactor (a cleaning operation is a special case of an operation), comprising:

a body 84 capable of being suspended and lowered into the vessel 10 (N.B.: the cleaning device is lowered into the vent inlet 66 of the inlet mixer 40 in said pressure vessel 10 (see Figures 1-2 and 4-5, and [0018]-[0021]));

a tool 92 ([0021] and Figures 4-5 and 8) attached to the body (see Figures 4-5) capable of at least one of repairing and inspecting an interior of a pump 34 ([0017]) in the pressure vessel 10 (N.B.: cleaning is a special case of repairing); and

a guide 100 supported at a lower portion of the body (see Figure 8 in conjunction with Figures 4-5); the guide capable of being inclined with respect to a vertical axis (see Figures 4-5 and 8, and [0023]) when the body is suspended (as is the case in Figure 8) and the guide is inserted into an opening 66 (Figure 8 and [0021]) in the pump.

On claim 22: the guide 100 is freely supported at the lower portion of the body 84 (i.e., attached at one end only) (Figure 4) and inclined with respect to a vertical axis (main axis of 84 or main axis of 82; see Figure 4). Whether this angle is "appropriate" is a matter of use and hence of functional language: In reference to the claim language referring to "appropriate", intended use and other types of functional language must

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result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In re Casey, 152 USPQ 235 (CCPA 1967); In re Otto, 136 USPQ 458, 459 (CCPA 1963). Parenthetically, as evidenced from Figure 8 the angle is suitably flexible for insertion of the body 84 into the jet pump 34. Finally, a gravitational force is inherent and thus is one of the forces on the guide, and hence contributes to its orientation and its angle.

On claim 23: the guide 100 is part of tubing section 82, which is made of metal ([0021]). It is inherent to metal to be flexible to some degree so that when forced out of equilibrium, it returns to equilibrium. Furthermore, the limitation "to return to an appropriate position with respect to the body" implies a method of use limitation and as such constitutes functional language. In reference to the claim language referring to "to return to an appropriate position with respect to the body", intended use and other types of functional language must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In re Casey, 152 USPQ 235 (CCPA 1967); In re Otto , 136 USPQ 458, 459 (CCPA 1963).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- Minami (JP 2002-277582), the abstract;

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- Levesque et al. (6,076,407) (see IDS); the whole document.
- Kimura et al. (JP 2001159696)(see IDS); the abstract.
- Kanazaki et al. (JP 2001281386)(see IDS); the abstract.
- Kurata et al (2001-141873A); the abstract.

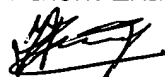
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Johannes P. Mondt whose telephone number is 571-272-1919. The examiner can normally be reached on 8:00 - 18:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack W. Keith can be reached on 571-272-6878. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JPM
May 8, 2006

Patent Examiner:



Johannes Mondt (Art Unit: 3663)